
GAM15 CAATGAGTCCGAGATCTTCA 1 TGAGTCCGAG 16 GA GAG-- AGA T GACCTGGAGGAGGAGATATG ATCTTCAGAC CAAT GTCC ATCTTC CC G AGGGACAATTG CTGG |||| |||| |||| |||

GTTA CAGG TAGAGG GG G A- GAGTA A-- A

GAM16 CATATGTTTCAGGGAA 2 TTTTATAGAC 17 - T CAGGG GG
AGCTAGGGGATGGTTTTATA ATCACTATG CATA TG ATGTTT AAAGCTA G
GACATCACTATG |||| || |||||||

GTAT AC TACAGA TTTTGGT /

C - TA--- AG

GAM19 CCATTGACAGAAGAAAAAA 5 TGACAGAAGA 20 --- - AGAAAAAA AA
AAAAGCATTAGTAGAAAATTT AAAAATAAAA CCAT TG ACAGA TAA G
GTACAGAGATGG GCAT |||| || ||||| |||
GGTA AC TGTTT ATT /
GAG A AAAGATG- AC

GAM21 GAATAGTTTTTGCTGTACTT 7 TAGTTTTTGC 22 G GTACT AG
TCTATAGTGAATAGAGTTAG TGTACTTTCT GAATA TTTTTGCT TTCTAT T
GCAGGGATATTC ATAG ||||| ||||||| ||||||
CTTAT AGGGACGG GAGATA /
- ATT-- AG

GAM22 GCCACATACCTAGAAGAATA 8 TAAGATGGGT 23 A--- GAAGAATA A - G
AGACAGGGCTTGGAAAGGAT GGCAAGTGGT GCCAC TACCTA AG CAGGG CTT G
TTTGCTATAAGATGGGTGGC ||||| ||||| ||| ||| ||| |||
AAGTGGT TGGTG GTGGGT TC GTTTT GGA A

AACG AGAATA-- - A A

GAM23 GGAGACAGCGACGAAGAGCT 9 CAGACTCATC 24 C GAC A - C CAG
CATCAGAACAGTCAGACTCA AAGCTTCTCT GGAGA AGC GA GAG CT AT A
TCAAGCTTCTCT ||||| || || || || ||
TCTCT TCG CT CTC GA TG /
- AA- A A C ACA

GAM24 GGTCCAAAATGCGAACCCAG 10 TCCAAAATGC 25 AA GAACCC T TA
ATTGTAAGACTATTTTAAAA GAACCCAGAT GGTCC AATGC AGAT G A
GCATTGGGACC TGTA ||||| ||||| |||||
CCAGG TTACG TTTA C /
G- AAAAT- T AG

GAM25 GTACTGGGTCTCTCTGGTTA 11 TCTCTGGTTA 26 C C A TCT CT
GACCAGATCTGAGCCTGGGA GACCAGATCT GTA TGGGT TCTCTGGTTAG CCAGA GAGC G
GCTCTCTGGCTAACTAGGGA GAGC ||| ||||| ||||| ||||| |||||
ACCCACTGC CGT ACCCA AGGGATCAATC GGTCT CTCG G
C - - --- AG

GAM26 TAATTGGAAGAATCTGTTG 12 TTGGTTGCAC 27 T ------- TT

ACTCAGATTGGTTGCACTTT TTTAAATTTT TAAT GGAAGA AATCTG G

AAATTTTCCCATTA CCCA |||| |||||| |||||

ATTA CCTTTT TTAGAC A

C AAATTTCACGTTGG TC

GAM27 TCTTTGGCAACGACCCCTCG 13 TGGCAACGAC 28 CAACGA CG ACA
TCACAATAAAGATAGGGGGG CCCTCGTCAC TCTTTGG CCCCT TC A
CAACTAAAGG AATA ||||||| |||| |||
GGAAATC GGGGG AG T
AACG-- AT AAA

GAM28 TTACCCTATAGTGCAGAACA 14 TATAGTGCAG 29 TATA GAACA--- C GGCAA ACA
TCCAGGGGCAAATGGTACAT AACATCCAGG TTACCC GTGCA TC AGG ATGGT T
CAGGCCATATCACCTAGAAC GGCA |||||| |||| |||| |||||
TTTAAATGCATGGGTAA AATGGG TACGT AG TCC TACCG /
---- AAATTTCA A ACTA- GAC

GAM29 TTCATTGCCAAGTTTGTTTC 15 AGCCTTAGGC 30 A AG------ T
ATAACAAAAGCCTTAGGCAT ATCTCCTATG TTC TTGCCA TTTGTT C
CTCCTATGGCAGGAA GCAG ||| |||||| |||||
AAG GACGGT AAACAA A
- ATCCTCTACGGATTCCGA T

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GENE TARGET UTR SEQUENCE
                         SEQID BINDING-SITE
GAM15 PRIM2A 3' CAGGCAGATCTCAGACTC 50
                                   С
                                      TCAGA
                  GAGTC GAGATCT CCTG
                  CTCAG CTCTAGA GGAC
                    A C
GAM15 RAP1B 3' CCAGGTCTGAAGAACTGTTGCC 142
                                    A CCG A
       CA
                   TG GT AG TCTTCAGACCTGG
                  AC CG TC AGAAGTCTGGACC
                   C TTG A
GAM15 RET
         3' CCAGGTCTAAACAGCTGACCCA 173 A CG ATCTTC
                  TG GTC AG AGACCTGG
                  AC CAG TC TCTGGACC
                   C GACAAA
GAM15 RET 3' CCAGGTCTAAACAGCTGACCCA 174 A CG ATCTTC
                  TG GTC AG AGACCTGG
                  AC CAG TC TCTGGACC
                   C _ GACAAA
          3' CCAGGTCTAAACAGCTGACCCA 179
GAM15 RET
                                    A CG ATCTTC
                  TG GTC AG AGACCTGG
                  AC CAG TC TCTGGACC
                   C __ GACAAA
GAM15 RET 3' CCAGGTCTAAACAGCTGACCCA 37 A CG ATCTTC
                  TG GTC AG AGACCTGG
                  AC CAG TC TCTGGACC
                   C __ GACAAA
GAM15 AMOTL1 3' CTGATAAAGATTTCAGACTCA 304
                  TGAGTC GAGATCT TCAG
                  ACTCAG CTTTAGA AGTC
                    Α
                      AAT
GAM15 DGKZ 3' CCAGACCTAGGGCTGGACTCA 70
                                  G A C AC
                  TGAGTCC AG TCTT AG CTGG
                  ACTCAGG TC GGGA TC GACC
                     _ _ CA
GAM15 DKFZP586G1122 3' CAGGTCTAGCCGGGCCCA 265
                                      A AGAT TC
                  TG GTCCG CT AGACCTG
                  AC CGGGC GA TCTGGAC
                   C C____
GAM15 FLJ22127 3' CCAGGCCTGAATGGATGGACTC 192
                                    GAG __ A
                   TGAGTCC ATCT TCAG CCTGG
       Α
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ACTCAGG TAGG AGTC GGACC
                        __ TA C
GAM15 LOC126248 3' CAGCCCTGGCTGGACTC
                                         G ATCT AC
                                   308
                     GAGTCC AG TCAG CT G
                     CTCAGG TC GGTC GA C
                       _ ___ CC A
GAM15 LOC146640 5' CCAGGTGACCTACCCGGACTCA 323
                                             AGATCT AG
                    TGAGTCCG
                               TC ACCTGG
                          ACTCAGGC
                              AG TGGACC
                        CCATCC
GAM15 LOC153416 3' CCAGGTCTGAAGAACTGTTGCC 263
                                           A CCG A
        CA
                      TG GT AG TCTTCAGACCTGG
                    AC CG TC AGAAGTCTGGACC
                     C TTG A
GAM15 LOC220790 3' CCAGGTCTGAAGAACTGTTGCC 378
                                           A CCG A
        CA
                      TG GT AG TCTTCAGACCTGG
                    AC CG TC AGAAGTCTGGACC
                     C TTG A
GAM16 PRKG2
            3' CATGGTGGTATCTTAAAA 103
                                       T C
                    TTTTA AGA ATCACTATG
                     AAAAT TCT TGGTGGTAC
                      _ A
            3' CATAGCAGGGCGTCTGTAAAA 183
GAM16 AFAP
                                           A_ A_
                    TTTTATAGAC TC CTATG
                     AAAATGTCTG GG GATAC
                        CG AC
GAM16 C3AR1 3' CATAGTGAAAGTTTATAAGA 76
                                          Α
                    TTTTATAGAC TCACTATG
                     AGAATATTTG AGTGATAC
                        AA
GAM16 FLJ22029 3' CATGAAAATGTCTATAGAA 203
                                           CAC
                    TTTTATAGACAT TATG
                     AAGATATCTGTA GTAC
                         AAA
GAM16 SEMA5A 3' CATAGTGACGTCCTGAAGA 72
                                        ATA A
                    TTTT GAC TCACTATG
                     AGAA CTG AGTGATAC
                      GTC C
GAM16 UNC5D 3' CATAGGATTTCTATAGAA 234
                                         C A
```

TTTTATAGA ATC CTATG

111111111 111 11111

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AAGATATCT TAG GATAC
                        T _
                                             CA_
GAM16 LOC129446 3' CATAGAATGTGTCTATAAA 315
                     TTTATAGACAT CTATG
                     AAATATCTGTG GATAC
                         TAA
GAM16 LOC153396 3' CATAGTGGCTGCCTATAGAA 338
                                            Α_
                     TTTTATAG CA TCACTATG
                     AAGATATC GT GGTGATAC
                        CC
GAM16 LOC50999 3' CATAATGGTGTCTTAAAA 145
                                         Τ
                                             C
                     TTTTA AGACATCA TATG
                     AAAAT TCTGTGGT ATAC
                           Α
GAM17 KIAA0830 3' AACATTATGCTTACTGCATC 290
                                        A _ TA
                     GAT CAG AGG CATAATGTT
                     CTA GTC TTC GTATTACAA
                      C A __
GAM17 PREI3
            3' AACATTATGTACTGTATATATC 275
                                          CAGA
                      ATGATA GGTACATAATGTT
         AΤ
                     TACTAT TCATGTATTACAA
                       ATATG
GAM17 SEC15L 3' ACATATGCCTCTACTCATA 297 TAC
                                               CATA
                     TATGA AGAGGTA ATGT
                     ATACT TCTCCGT TACA
                       CA_
                            Α_
GAM17 LOC152317 3' AACATCAATGGACTCTGTATCA 352
                                              GTA A
                     TGATACAGAG CAT ATGTT
                     ACTATGTCTC GTA TACAA
                         AG_ AC
            3' CATTTTGAAATACTTAA
GAM18 DSCR1
                                          \mathsf{TT}
                                81
                     TTAAGTGTTTCAA GTG
                     AATTCATAAAGTT TAC
                          T_
GAM18 ELMO2
            3' CCAGGAGAAACACTTA
                                 235
                                          AA G
                     TAAGTGTTTC TT TGG
                     ATTCACAAAG AG ACC
                         __ G
GAM18 ELMO2 3' CCAGGAGAAACACTTA
                                 186
                                          AA G
                     TAAGTGTTTC TT TGG
```

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ATTCACAAAG AG ACC
                          __ G
GAM18 FGF5 3' CCACAGGGAGCAAACACTTAG 227
                                              CAA
                      TTAAGTGTTT TTGTGG
                      GATTCACAAA GACACC
                          CGAGG
GAM18 FGF5
            3' CCACAGGGAGCAAACACTTAG 83
                                             CAA_
                      TTAAGTGTTT
                                 TTGTGG
                      GATTCACAAA
                                 GACACC
                          CGAGG
GAM18 NEFH
             3' CCACACGTAAACACTTGA 180
                                            CAAT
                      TTAAGTGTTT TGTGG
                      AGTTCACAAA ACACC
                          TGC_
GAM18 NFIB
            3' CCACAAAAGAAACACTTAA 93
                                           AA
                      TTAAGTGTTTC TTGTGG
                      AATTCACAAAG AACACC
                          AA
GAM18 PRKY
             3' CCATAAATGAAACACTTGA 62
                                            Α
                      TTAAGTGTTTCA TTGTGG
                      AGTTCACAAAGT AATACC
GAM18 RNF18
            5' CCACAATTGGGTTCTTA 172
                                         TGT
                      TAAG TTCAATTGTGG
                      ATTC GGGTTAACACC
                       TT_{-}
GAM18 SLC1A3 3' CCACAATTGAAATTTTAA 77
                      TTAAG GTTTCAATTGTGG
                      AATTT TAAAGTTAACACC
                        Т
GAM18 VMD2
             3' CCATTGGAAACATTTAA
                                           AATT
                                  78
                      TTAAGTGTTTC GTGG
                      11111111111 1111
                      AATTTACAAAG TACC
                          GT_{\underline{\phantom{a}}}
GAM18 XRCC3
             5' CCAGGGAGACACTTAA
                                  91
                                           AAT G
                      TTAAGTGTTTC T TGG
                      AATTCACAGAG G ACC
                            _{\mathsf{G}}
GAM18 ARHGAP5 3' CTATATGAAACATTTAA
                                   321
                                             AΤ
                      TTAAGTGTTTCA TGTGG
```

GAM18 EFA6R 3' CCATTGTGAAACACTTAA 140 ATT

TTAAGTGTTTCA GTGG

AATTCACAAAGT TACC

GT

GAM18 KIAA0903 3' CCACATGTAACACTTA 294 T AT

TAAGTGTT CA TGTGG

ATTCACAA GT ACACC

T

GAM18 KIAA1244 3' CCACAATTGTCTGAACAT 295

GTGTTT CAATTGTGG

TACAAG GTTAACACC

TCT

GAM18 Rpo1-2 3' CTGTGGTAAGAACACTTAA 214 CA TG

TTAAGTGTTT AT TGG

AATTCACAAG TG GTC

AA GT

GAM18 LOC115574 3' CCACAACTGGAAACACTTGA 303 AA_

TTAAGTGTTTC TTGTGG

AGTTCACAAAG AACACC

GTC

GAM18 LOC144144 5' CCACAATTGGGTTCTTA 260 TGT

TAAG TTCAATTGTGG

ATTC GGGTTAACACC

 TT_{-}

GAM18 LOC148254 3' CCATCAAAAGAAACACTTAA 329 AA _

TTAAGTGTTTC TTG TGG

AATTCACAAAG AAC ACC

AA T

GAM18 LOC157624 5' CCACTGAAACATTTAA 359 ATT

TTAAGTGTTTCA GTGG

AATTTACAAAGT CACC

GAM18 LOC220486 5' CCACAATTGGGTTCTTA 374 TGT

TAAG TTCAATTGTGG

ATTC GGGTTAACACC

 TT_{-}

GAM19 AGL 3' ATGCTTTCATTTTTCACTG 31 AA A

CAG GAAAAAAT AAAGCAT

```
GTC CTTTTTTA TTTCGTA
                      A_
                           С
GAM19 AGL
           3' ATGCTTTCATTTTTCACTG 43
                                      AΑ
                                            Α
                     CAG GAAAAAAT AAAGCAT
                     GTC CTTTTTTA TTTCGTA
                      Α
                           С
GAM19 AGL
           3' ATGCTTTCATTTTTCACTG 44
                                       AA
                                            Α
                     CAG GAAAAAAT AAAGCAT
                     GTC CTTTTTTA TTTCGTA
                      Α
                           C
GAM19 AGL
           3' ATGCTTTCATTTTTCACTG 45
                                      AA
                                            Α
                     CAG GAAAAAAT AAAGCAT
                     GTC CTTTTTTA TTTCGTA
                           С
GAM19 AGL
           3' ATGCTTTCATTTTTCACTG 46
                                       AA
                                            Α
                     CAG GAAAAAAT AAAGCAT
                     GTC CTTTTTTA TTTCGTA
                      A_
                           С
GAM19 AGL
           3' ATGCTTTCATTTTTTCACTG 47
                                       AA
                                            Α
                     CAG GAAAAAAT AAAGCAT
                     GTC CTTTTTTA TTTCGTA
                      Α
                           С
GAM19 ALB
           5' GCTTTTCTCTTCTGTCA
                                40
                                       AAAAAT
                     TGACAGAAGA
                                 AAAAGC
                     ACTGTCTTCT
                                 TTTTCG
                         C_{-}
GAM19 CKN1
            3' TTTTATTCTTTCTTCA 32
                                          Α
                     TGA AGAAGAAA AATAAAA
                     ACT TCTTCTTT TTATTTT
                          С
            3' TTTATTTTTTATCCTGTCA 189
GAM19 HHIP
                                       AAG
                     TGACAG AAAAAATAAA
                     ACTGTC TTTTTTATTT
                       CTA
GAM19 IFNA1
            3' GCTTTCATGAATTCTGTCA 194
                                         GAAAAA A
                     TGACAGAA
                               AT AAAGC
                     ACTGTCTT
                               TA TTTCG
                        AAG___ C
GAM19 KCNJ6 5' TTTTTTTTTTTCTTCTGCCA 60
                                       Α
                                            Т
                     TG CAGAAGAAAAA AAAA
```

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С
                          Т
GAM19 OTP 3' GCTTTTATTTTTATC 212 C GA
                    GA AGAA AAAAATAAAAGC
                    CT TTTT TTTTTATTTTCG
                     А А
GAM19 RHEB2 3' ATGCTTCTTTTTCTTCTGTTA 94
                                           TAA
                    TGACAGAAGAAAAA AAGCAT
                    ATTGTCTTCTTTTT TTCGTA
                          С
GAM19 ANKRD6 3' ATGCTTTTATTCCCTTTGTTA 137
                                         AGAAAA
                    TGACAGA AATAAAAGCAT
                    ATTGTTT TTATTTTCGTA
                       CCC
GAM19 EVI5 3' TGCAGGTTTTTCTTCA 95
                                   С
                                        ATAAAA
                    TGA AGAAGAAAA
                                   GCA
                    ACT TCTTCTTTTT
                                  CGT
                          GGA
GAM19 FLJ00026 3' ATGCTTTGCTTTTTTTTTTATG 270
                                        G
                                             TΑ
        TCA
                     TGACA AAGAAAAA AAAGCAT
                    ACTGT TTCTTTTTT TTTCGTA
                      Α
                          TCG
                                          __ AA
           3' ATGCTCATATCATTTTTCTTCT 84 C
GAM19 GP5
        TCA
                     TGA AGAAGAAAA ATA AGCAT
                    ACT TCTTCTTTTT TAT TCGTA
                         AC AC
GAM19 KHDRBS3 3' ATGCTAGTTTTTTTTTCTCTT 107 C
                                             AAA
                    GA AGAAGAAAAAT AGCAT
                    TT TCTTTTTTTTG TCGTA
                     С
                          Α___
GAM19 KIAA0254 3' TGCTGTGTTCTTTCTGTCA 132
                                         AAAATAAA
                    TGACAGAA GAA
                                  AGCA
                    IIII
                    ACTGTCTT CTT
                                 TCGT
                       T GTG
GAM19 KIAA1165 3' ATGCTTTATAACCTCTTCTGT 281
                                        AAAAATA
                    ACAGAAGA
                             AAAGCAT
                    TGTCTTCT
                              TTTCGTA
                       CCAATA_
GAM19 KIAA1240 3' GTGGCCATTTTTCTTCTGTCA 277
                                             AAAA
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TGACAGAAGAAAAAT GC

AC GTCTTCTTTTT TTTT

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ACTGTCTTCTTTTTA TG
```

CCGG

GAM19 NYD-SP15 3' ATGCCATTTTTTTTCTTCTGT 209 TAAAA

ACAGAAGAAAAA GCAT

TGTCTTCTTTTT CGTA

TTAC

GAM19 PELI1 5' GCTTTACTCTTTCTGTC 175 AAATA

GACAGAAGAAA AAAGC

1111111111 11111

CTGTCTTCTTT TTTCG

CTCA

GAM19 PRO0159 5' TTATTTTTTCCTTGTCA 125 AA

TGACAG GAAAAAATAA

ACTGTT CTTTTTTATT

С

GAM19 RACGAP1 3' ATGTGAGCTTTTTCTTCTGTTA 121 ATAAAA

TGACAGAAGAAAA GCAT

ATTGTCTTCTTTTT TGTA

CGAG__

GAM19 SDFR1 3' TTATCTTTTCTTGTTA 118 A

TGACAGAAGAAAA ATAA

ATTGTCTTCTTTT TATT

С

GAM19 SDFR1 3' TTATCTTTTCTTCTGTTA 151

TGACAGAAGAAAA ATAA

Α

ATTGTCTTCTTTT TATT

С

GAM19 SS18L1 3' TTATTCTATCTTCTGTCA 272 AAA

TGACAGAAGA AATAA

1111111111 11111

ACTGTCTTCT TTATT

ATC

GAM19 SV2B 3' ATGTTTACTCTCTTCTGTCA 136 AAAAAATAA

TGACAGAAG AAGCAT

11111111 111111

ACTGTCTTC TTTGTA

CTCTCA_

GAM19 LOC130589 3' TGCTTTTATTTCCTCCTCCTTC 244 CA A AA

A TGA GA GA AAATAAAAGCA

ACT CT CT TTTATTTTCGT

TC C CC

GAM19 LOC200107 3' ATGCTTTTACTTTTT 364 A

AGAAGAAAA TAAAAGCAT

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TTTTCTTTTT ATTTTCGTA
                          C
GAM19 LOC203340 3' TGCTTTTATTTTCCTTC
                                   368
                                         AA
                      GAAG AAAATAAAAGCA
                      CTTC TTTTATTTTCGT
                       С
GAM19 LOC221271 3' TGCCTTTTTTTTCTGTCA
                                    380
                                              ATAAAA
                      TGACAGAAGAAAA
                                      GCA
                      Ш
                      ACTGTCTTTTTTT
                                     CGT
                           С
GAM19 LOC254778 3' ATGCTTTTCTTCTATCA
                                   400
                                         С
                                              AAATAAA
                      TGA AGAAGAAA
                                    AGCAT
                      ACT TCTTCTTT
                                   TCGTA
                       Α
GAM19 LOC51312 5' GCTTTTATTTTCTCCTCT
                                  164
                                         A A
                      AGA GA AAAATAAAAGC
                      TCT CT TTTTATTTTCG
                       C
GAM19 LOC91286 5' TTTTTATTTCTTTTCTGTCA 273
                                              Α
                      TGACAGAAGAA AAATAAAAG
                      ACTGTCTTTTT TTTATTTTT
GAM19 LOC92223 3' ATGCTTTTATTGTACCTTC 286
                                          AAAA
                      GAAG AATAAAAGCAT
                      CTTC TTATTTTCGTA
                       CATG
GAM19 LOC92482 5' TGCATCTTTTCTTGT
                                   288
                                            A AAAA
                      ACAGAAGAAAA AT GCA
                      TGTCTTCTTTT TA CGT
                          C _
            3' CTATCTGATGCACAGAA
                                            AAG
GAM20 ATRN
                                  248
                                        G
                      TT TGTGCATCA GATAG
                      11 111111111 11111
                      AA ACACGTAGT CTATC
                       G
GAM20 ATRN
            3' CTATCTGATGCACAGAA
                                  248
                                       G
                                            AAG
                      TT TGTGCATCA GATAG
                      AA ACACGTAGT CTATC
                       G
GAM20 DKFZP564O0463 3' CTTTTTCTTAATGCATACAATA 127
                                                   CAA T
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TATTGTGTGCAT AGGA AGAG

ATAACATACGTA TTCT TTTC A__ T GAM20 DKFZP564O0463 3' CTTTTTCTTAATGCATACAATA 127 CAA T TATTGTGTGCAT AGGA AGAG ATAACATACGTA TTCT TTTC A__ T GAM20 FLJ13102 3' CTCTACCCTCTCCCACCACACA 202 CATCAA_ A **GTA** TATTGTGTG AGG TAGAG ATGACACAC TCC ATCTC CACCCTC C GAM20 FLJ13102 3' CTCTACCCTCTCCCACCACACA 202 CATCAA A **GTA** TATTGTGTG AGG TAGAG ATGACACAC TCC ATCTC CACCCTC C GAM20 HSPC014 3' CTGTAATTTGATGTACACAA 144 GG TTGTGTGCATCAAA ATAG AACACATGTAGTTT TGTC AA GAM20 HSPC014 3' CTGTAATTTGATGTACACAA 144 GG TTGTGTGCATCAAA ATAG AACACATGTAGTTT TGTC AA GAM20 KIAA0040 3' TCTATCCCCTTGTCACATA 129 TCAAA TGTGTG CA GGATAGA ATACAC GT CCTATCT T TCC GAM20 KIAA0040 3' TCTATCCCCTTGTCACATA 129 TCAAA TGTGTG CA GGATAGA ATACAC GT **CCTATCT**

T TCC_

GAM20 KIAA0470 3' CCACTTGATGCACAAATA 134 G A

TATT TGTGCATCAA GG

ATAA ACACGTAGTT CC

CA

GAM20 KIAA0470 3' CCACTTGATGCACAAATA 134 G A_

TATT TGTGCATCAA GG

ATAA ACACGTAGTT CC

CA

GAM20 KIAA1908 5' CTCTCGGGCGATGCACACAA 302 AAAGGAT

TTGTGTGCATC AGAG

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AACACACGTAG
                                   TCTC
                          CGGGC
GAM20 KIAA1908 5' CTCTCGGGCGATGCACACAA 302
                                             AAAGGAT
                     TTGTGTGCATC
                                   AGAG
                     Ш
                     AACACACGTAG
                                   TCTC
                          CGGGC
GAM20 MGC22014 3' CTCTATCCTTGTATATCACAAT 269
                                             TGCATCA
                      TATTGTG
                               AAGGATAGAG
                     ATAACAC
                              TTCCTATCTC
                        TATATG
GAM20
      MGC22014 3' CTCTATCCTTGTATATCACAAT 269
                                             TGCATCA
         Α
                      TATTGTG
                               AAGGATAGAG
                     ATAACAC
                               TTCCTATCTC
                        TATATG
GAM20 TNRC9 3' CTGTATTTTGATGCAACAA 293
                                         G
                                              G
                     TTGT TGCATCAAAG ATAG
                     AACA ACGTAGTTTT TGTC
                           Α
GAM20 TNRC9
             3' CTGTATTTTGATGCAACAA 293
                                              G
                     TTGT TGCATCAAAG ATAG
                     1111 11111111111 1111
                     AACA ACGTAGTTTT TGTC
GAM20 LOC116123 3' CTTTGGTTTGATGCATACAATA 243
                                                 GGA
                     TATTGTGTGCATCAAA TAGAG
                     ATAACATACGTAGTTT GTTTC
                            G
GAM20 LOC116123 3' CTTTGGTTTGATGCATACAATA 243
                                                 GGA
                     TATTGTGTGCATCAAA TAGAG
                     ATAACATACGTAGTTT GTTTC
                            G___
GAM20 LOC149721 3' CTATCATGTGGATGCACACA 334
                                              AAAG_
                     TGTGTGCATC GATAG
                     ACACACGTAG
                                CTATC
                         GTGTA
GAM20 LOC149721 3' CTATCATGTGGATGCACACA 334
                                              AAAG_
                     TGTGTGCATC GATAG
                     ACACACGTAG CTATC
                         GTGTA
GAM20 LOC153338 5' CTCTATCCCTCTGTGGCCAATA 354
                                            T G CAAA
                     TATTG GT CAT GGATAGAG
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ATAAC CG GTG CCTATCTC
                       _ _ TCTC
GAM20 LOC153338 5' CTCTATCCCTCTGTGGCCAATA 354 T G CAAA
                     TATTG GT CAT GGATAGAG
                     ATAAC CG GTG CCTATCTC
                       \_ \_ TCTC
GAM20 LOC220766 3' CCACTTGATGCACAAATA 375
                                         G
                                              Α_
                     TATT TGTGCATCAA GG
                     ATAA ACACGTAGTT CC
                           CA
GAM20 LOC220766 3' CCACTTGATGCACAAATA 375
                                         G
                                              Α
                     TATT TGTGCATCAA GG
                     ATAA ACACGTAGTT CC
                           CA
GAM20 LOC253351 5' CTGGCACCTGATGCACACAA 402
                                              AAGGA
                     TTGTGTGCATCA TAG
                     AACACACGTAGT GTC
                         CCACG
GAM20 LOC253351 5' CTGGCACCTGATGCACACAA 402
                                              AAGGA
                     TTGTGTGCATCA TAG
                     AACACACGTAGT GTC
                         CCACG
GAM20 LOC257484 3' CTCTATCCTTGTATATCACAAT 366
                                            TGCATCA
                     TATTGTG
                              AAGGATAGAG
                     ATAACAC
                              TTCCTATCTC
                       TATATG
GAM20 LOC257484 3' CTCTATCCTTGTATATCACAAT 366
                                            TGCATCA
        Α
                     TATTGTG AAGGATAGAG
                     1111111
                          ATAACAC TTCCTATCTC
                       TATATG
GAM21 KIAA1843 3' ATAGAAAGTAGCCAAAAA 267
                                         CTG
                     TTTTTG TACTTTCTAT
                     AAAAAC ATGAAAGATA
                       CG_{-}
GAM21 SDFR1 3' AAAGTACAGCAAAACCTA 117
                                       Т
                     TAG TTTTGCTGTACTTT
                     ATC AAAACGACATGAAA
                      С
GAM21 SDFR1 3' AAAGTACAGCAAAACCTA 150
                                       Т
                     TAG TTTTGCTGTACTTT
```

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ATC AAAACGACATGAAA
                      C
GAM21 LOC132617 3' CTACAGACCATAGCAAAAAC 314
                                             ACTT A
                     GTTTTTGCTGT TCT TAG
                     CAAAAACGATA AGA ATC
                         CC__ C
GAM21 LOC145622 3' CTATAGAACAATGCAAAAAC 322
                                            TGTACT
                     GTTTTTGC
                               TTCTATAG
                     CAAAAACG
                               AAGATATC
                        TAAC
GAM21
      LOC222681 3' CTACAGAACATGGAGCAAAAAC 386
                                               G CT A
         TA
                      TAGTTTTTGCT TA TTCT TAG
                     ATCAAAAACGA GT AAGA ATC
                         G AC C
GAM21 LOC257507 3' CTACAGAACATGGAGCAAAAAC 405
                                               G CT A
         TA
                      TAGTTTTTGCT TA TTCT TAG
                     ATCAAAAACGA GT AAGA ATC
                         G AC C
GAM21 LOC257625 3' CTACAGAACATGGAGCAAAAAC 406
                                               G CT A
         TA
                      TAGTTTTTGCT TA TTCT TAG
                     ATCAAAAACGA GT AAGA ATC
                         G AC C
            3' ACCACTACATCCATCT
GAM22 BTEB1
                                53
                                        GCA
                     AGATGGGTG AGTGGT
                     TCTACCTAC TCACCA
GAM22 CEP2
            3' ACCACCTCCTTCATCTT
                                112
                                        T CAA
                     AAGATGGG GG GTGGT
                     TTCTACTT CC CACCA
                        _ TC_
            3' ACCCTGCCCCACCCATCT 82
GAM22 ECM1
                                          CA_ T
                     AGATGGGTGG AG GGT
                     TCTACCCACC TC CCA
                         CCG _
GAM22 ENG
            3' ACCACTTGCCACGCTGTT 34
                     GATGG GTGGCAAGTGGT
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3' ACCACTTTTCAGCCATTT 276

G

GAM22 ESRRG

TTGTC CACCGTTCACCA

AGATGG TGG AAGTGGT

G C

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G T
GAM22 HDAC4 3' ACCACTCGACTCATCTTG 98
                                      GGCA
                   TAAGATGGGT AGTGGT
                   GTTCTACTCA TCACCA
                       GC
GAM22 IL6
          3' ACCACTTGAAACATTTTA 41
                                    GGTGG
                   TAAGATG CAAGTGGT
                   ATTTTAC GTTCACCA
                      AAA
GAM22 LRAT
           3' ACCACTTAAAATTATCTTA 259
                                      GTGGC
                   TAAGATGG AAGTGGT
                   ATTCTATT TTCACCA
                      AAAA
GAM22 MYLK2 3' ACCACTCGGGGCCCCCATCTTG 226
                                         ТА
                   TAAGATGGG GGC AGTGGT
                   GTTCTACCC CCG TCACCA
                       _ GGGC
GAM22 PRKACB 3' ACCACTTCTTTCATCT 61
                                    TC
                   AGATGGG GG AAGTGGT
                   TCTACTT TC TTCACCA
                      Τ_
GAM22 PRLR
           3' ACCACTTGCCTCTTTCT 51 T T
                   AGA GGG GGCAAGTGGT
                   TCT TCT CCGTTCACCA
                     Т
GAM22 SLC6A6 3' ACCACTTGAATTGATCTT 65
                                     G GG
                   AAGAT GGT CAAGTGGT
                   TTCTA TTA GTTCACCA
                     G A_
GAM22 WASF3 3' ACCACTTGGTCAGAATTTTA 109
                                       GGG _
                   TAAGAT TGGC AAGTGGT
                   ATTTTA ACTG TTCACCA
                      AG_G
GAM22 XK
          3' ACCACTTGCACTATTCTTA 181 TG G
                   TAAGA GGTG CAAGTGGT
                   ATTCT TCAC GTTCACCA
                     TΑ
                              69
GAM22 ZYX
          3' ACCACCTGCCCCCACCT
                                   A T A
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AG TGGG GGCA GTGGT

11 1111 1111 11111

TTTACC ACT TTCACCA

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TC ACCC CCGT CACCA
                      C _ C
            3' ACCCTGGACCACCCATCT 167
                                          CA T
GAM22 ARHF
                     AGATGGGTGG AG GGT
                     TCTACCCACC TC CCA
                         AGG
GAM22 DDR1
            5' CGCACCACCCATTTTA
                                57
                                         CAA
                     TAAGATGGGTGG GTG
                     ATTTTACCCACC CGC
                         Α
GAM22 DDR1
            5' CGCACCACCCATTTTA
                                122
                                         CAA
                     TAAGATGGGTGG GTG
                     ATTTTACCCACC CGC
                         Α
GAM22 DDR1
            5' CGCACCACCCATTTTA
                                123
                                         CAA
                     TAAGATGGGTGG GTG
                     ATTTTACCCACC CGC
                         A__
GAM22 DKFZP547E1010 5' ACCACCTCCCTATCTTA
                                              TG CAA
                                      141
                     TAAGATGGG G GTGGT
                     ATTCTATCC C CACCA
                        CT
GAM22 DKFZP547E1010 5' ACCACCTCCCTATCTTA
                                              TG CAA
                                      280
                     TAAGATGGG G GTGGT
                     ATTCTATCC C CACCA
                        CT
GAM22 FLJ11715 3' ACCGCGCCCAGCCCATCT 197
                                           __ AA
                     AGATGGGT GGC GTGGT
                     TCTACCCG CCG CGCCA
                        AC __
GAM22 FLJ12587 3' ACCAGGGCCGCATCCATCT 190
                                              AAG
                     AGATGG GTGGC TGGT
                     11111 11111 1111
                     TCTACC CGCCG ACCA
                       TA GG_
GAM22 FLJ12650 3' ACCACTTGCCAATGCCTCTC 196
                                         T ____
                     GA GGGT GGCAAGTGGT
                     CT TCCG CCGTTCACCA
                      C TAA
GAM22 FLJ13265 3' ACCACTTGCCCTGCCTCA 201
                     TG GGT GGCAAGTGGT
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AC CCG CCGTTCACCA
                     T TC
GAM22 FLJ20546 3' ACCTCTGCCACCCATCT 155
                                           ΑТ
                     AGATGGGTGGCA G GGT
                     TCTACCCACCGT C CCA
                         _{\rm T}
GAM22 FLJ32865 3' ACCACCACGCCCAGCTTA 251
                                         A GCAA
                     TAAG TGGGTG GTGGT
                     ATTC ACCCGC CACCA
                      G
                          AC
GAM22 GPR88
            3' ACCACTTGTTGTACATCT 185
                                        G TG
                     AGATG G GCAAGTGGT
                     TCTAC T TGTTCACCA
                       A GT
GAM22 HSPC216 3' ACCTGACCACCCATTT 149
                                          AGT
                     AGATGGGTGG CA GGT
                     TTTACCCACC GT CCA
                         Α __
GAM22 JIK
           3' ACCACATTCCCCATTTTA 148
                                       T CAA
                     TAAGATGGG GG GTGGT
                     ATTTTACCC CT CACCA
                        _ TA_
GAM22 KIAA0153 3' ACCACCCAGCAAGCCCGCCTTA 139
                                             G_ AA_
                     TAAG TGGGT GC GTGGT
                     ATTC GCCCG CG CACCA
                      C AA ACC
GAM22 KIAA0215 3' ACCAGGAGACCACCATCTTA 130
                                           G CAAG
                     TAAGATGG TGG TGGT
                     ATTCTACC ACC
                                 ACCA
                        _ AGAGG
GAM22 KIAA0461 3' ACCACTTGTTGAAATCCA
                                  291
                     TGGGT GGCAAGTGGT
                     ACCTA TTGTTCACCA
                       AAG
GAM22 MEGF10 3' ACCACAGACTCATCTTA
                                  216
                                          GGCAA
                     TAAGATGGGT GTGGT
                     ATTCTACTCA CACCA
                         \mathsf{GA}_{-}
GAM22 MGC2452 5' ACCACTAATTGCCACTCA 218
                     TGGGTGGCA AGTGGT
```

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TAA
GAM22 MGC4796 3' ACCTTCACCTCATCTTA
                                  266
                                         CAAGT
                     TAAGATG GGTGG GGT
                     ATTCTAC CCACT CCA
                        T T
GAM22 MRPL10 3' ACCACATTGTACCCATTT
                                  256
                                          G _
                     AGATGGGTG CAA GTGGT
                     TTTACCCAT GTT CACCA
                        Α
GAM22 MRPL42 5' ACCACTTGATAAGCATCTTG 299
                                           GG G
                     TAAGATG TG CAAGTGGT
                     GTTCTAC AT GTTCACCA
                        GA A
GAM22 POLYDOM 3' ACCACTGCTATCCATCTT 195
                                             Α
                     AAGATGGGTGGCA GTGGT
                     TTCTACCTATCGT CACCA
GAM22 PRO0246 5' ACCACTTGCTATGGTCT
                                  126
                                        GG
                     AGAT GTGGCAAGTGGT
                     TCTG TATCGTTCACCA
                      G
GAM22 SMCR7 3' ATGACTTGCCACCCACCT 247
                                             G
                                        Α
                     AG TGGGTGGCAAGT GT
                     TC ACCCACCGTTCA TA
                      С
                           G
                                       ATG GC
GAM22 TPD52
            3' ACCACTTATATCAACTTA 88
                     TAAG GGTG AAGTGGT
                     ATTC CTAT TTCACCA
                      AA_ A_
GAM22 ZNF384 3' ACCACTCATCACGGCCATCTT 239
                                             CA
                     AAGATGG GTGG AGTGGT
                     1111111 1111 111111
                     TTCTACC CACT TCACCA
                        GG AC
GAM22 LOC124216 3' ACCTCTCCTCACCCATCTTA 307
                                             CA T
                     TAAGATGGGTGG AG GGT
                     ATTCTACCCACT TC CCA
                         CC T
                                             __ AA
GAM22 LOC144509 5' ACCACCAGCTGCACCCATCT 320
```

AGATGGGTG GC GTGGT

111111111 11 11111

ACTCACCGT TCACCA

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TCTACCCAC CG CACCA
                         GT AC
GAM22 LOC146822 3' ACCACCTGCCCTACCATTT 324
                                            GT_A
                      AGATGG GGCA GTGGT
                      TTTACC CCGT CACCA
                        ATC C
GAM22 LOC148371 5' ACCACTTCTGGCCATCT
                                    330
                                           G C
                      AGATGG TGG AAGTGGT
                      TCTACC GTC TTCACCA
                        G _
GAM22 LOC149373 3' ACCTGCCGGCCACCCATTCA 333
                                                 AA _
                      A GATGGGTGGC GT GGT
                      1 1111111111 11 111
                      A TTACCCACCG CG CCA
                      С
                           GC T
GAM22 LOC151146 5' ACCCCCCAGCCCATCTTA
                                     336
                                             CAAGT
                      TAAGATGGG TGG GGT
                      ATTCTACCC ACC
                                    CCA
                         G CC
GAM22 LOC157562 5' ACCACCCAGTCATTTTA
                                            G CAA
                                    357
                      TAAGATGG TGG GTGGT
                      11111111 111 11111
                      ATTTTACT ACC CACCA
GAM22 LOC160897 3' ACCACTTATAATGCCTCATCTT 341
                                              _ GC__
         Α
                      TAAGATG GGTG AAGTGGT
                      ATTCTAC CCGT TTCACCA
                        T AATA
                                           G A
GAM22 LOC161589 5' ACCACTGCTGGCCATCT
                                    343
                      AGATGG TGGCA GTGGT
                      TCTACC GTCGT CACCA
                        G
GAM22 LOC163682 5' ACCACTTGCCGAGCTCCTA 361
                      TGGG TGGCAAGTGGT
                      ATCC GCCGTTCACCA
                       TCGA
GAM22 LOC199692 3' ACCAGTAACCTATCTTA
                                    257
                                            G AAG
                      TAAGATGGGT GC TGGT
                      ATTCTATCCA TG ACCA
                          Α
GAM22 LOC202108 5' ACCACTACTGGCCATCT
                                    367
                                           G CA
                      AGATGG TGG AGTGGT
```

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TCTACC GTC TCACCA
                       G A_
GAM22 LOC221468 3' ACCACCCAGTTCTTCATCTT 258
                                           TG AA
                    AAGATGGG GC GTGGT
                    TTCTACTT TG CACCA
                        CT ACC
GAM22 LOC221838 5' ACCACTACTGGCCATCT
                                  385
                                         G CA
                    AGATGG TGG AGTGGT
                     TCTACC GTC TCACCA
                       GA
GAM22 LOC221839 5' ACCACTACTGGCCATCT
                                         G CA
                                  384
                    AGATGG TGG AGTGGT
                    TCTACC GTC TCACCA
                       G A
GAM22 LOC90313 5' ACCACCCCTGTGCCCATC 268
                                          GA
                    GATGGGTG CA GTGGT
                    CTACCCGT GT CACCA
                        _ CCC
GAM22 LOC92399 3' ACCACCTGCTCCTCATCTTA 242
                                           TG A
                    TAAGATGGG GCA GTGGT
                     ATTCTACTC CGT CACCA
                        CT C
            3' AGAGAAGCCATGCGTTCC 52
GAM23 ADAM8
                                      A T CAA
                    C GAC CAT GCTTCTCT
                    C TTG GTA CGAAGAGA
                     C C C_{-}
GAM23 BN51T
            3' AGAGAGCAAGGATTGAGTCTG 363
                                           AA T
                     CAGACTCA TC GCT CTCT
                    GTCTGAGT AG CGA GAGA
                        T GAA _
GAM23 CD3Z
            3' AGACTGACCTTGATGAGCTG 48
                                            C C_
                     CAG CTCATCAAG TT TCT
                     GTC GAGTAGTTC AG AGA
                          C TC
GAM23 DAAM2
             3' AGGTGCTTGATGAATCTG 381
                                        С
                                            Т
                    CAGA TCATCAAGC TCT
                     GTCT AGTAGTTCG GGA
                      Α
                          Т
GAM23 DLG4
            3' AGGGAGGGATGGGTCT
                                 54
                                        AAG
```

AGACTCATC CTTCTCT

TCTGGGTAG GGAGGGA

GAM23 DMD 5' AGAAAAGCTTGAGCAAGTC 73 GACT TCAAGCTTTCT	CA_	C
CTGA AGTTCGAA AGA ACG A	A	
GAM23 DMD 5' AGAAAAGCTTGAGCAAGTC 74 GACT TCAAGCTT TCT	CA_	_ C
 CTGA AGTTCGAA AGA	Ą	
ACG A GAM23 DMD 5' AGAAAAGCTTGAGCAAGTC 75 GACT TCAAGCTTTCT	CA_	_ C
	Ą	
ACG A GAM23 E2F1 3' AGGCCTCTTTGGTGAGCCTG 348	3 A	
CAG CTCATCAA GCT		
 GTC GAGTGGTT CGG C TCTC	àΑ	
GAM23 EBP 3' AGAGAAGCCAGGAGGTCT 108 AGACT TC GCTTCTC		AA_
 TCTGG AG CGAAGAG	àΑ	
GAC		
GAM23 FANCG 5' AGAGAAGCAGGGGAGCTC 85 GA CTC TC GCTTCTCT	_	A AA
11 111 11 11111111		
CT GAG GG CGAAGAG C _ GA	iΑ	
GAM23 FE65L2 5' AGGCGCCTGATGAGTTCA 99	Α	ΑТ
C GACTCATCA GC TCT		
 A TTGAGTAGT CG GGA		
C C C	`	
GAM23 FE65L2 5' AGGCGCCTGATGAGTTCA 236	Α	АТ
C GACTCATCA GC TCT		
 A TTGAGTAGT CG GGA	١	
ССС		
GAM23 FE65L2 5' AGGCGCCTGATGAGTTCA 237 C GACTCATCA GC TCT		АТ
A TTGAGTAGT CG GGA	١	
C C C GAM23 FE65L2 5' AGGCGCCTGATGAGTTCA 238	Α	ΑТ
		Λ I
C GACTCATCA GC TCT		

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A TTGAGTAGT CG GGA
                     C
                         CC
GAM23 FGFR4 3' AGAGAAGCTGGAAGCCTG 193
                                       A CA A
                    CAG CT TC AGCTTCTCT
                    GTC GA AG TCGAAGAGA
                      C __ G
GAM23 FGFR4 3' AGAGAAGCTGGAAGCCTG 58
                                       A CA A
                    CAG CT TC AGCTTCTCT
                    GTC GA AG TCGAAGAGA
                     C G
GAM23 FHL1
           3' AGAGAAGCTGATGCCTC 55
                                     CT
                                         Α
                    GA CATCA GCTTCTCT
                    CT GTAGT CGAAGAGA
                     CC
GAM23 GCNT2 5' AGAGAAACGAGTGAGTTTG 56
                                          CAAGC
                    CAGACTCAT TTCTCT
                    GTTTGAGTG AAGAGA
                        AGCA_
GAM23 GNRHR 5' AGAGAAGCTGGTAATTCTG 38
                                        CTC A
                    CAGA ATCA GCTTCTCT
                    GTCT TGGT CGAAGAGA
                      TAA _
GAM23 HIS1
          5' AGGGGAGATGAGTTTG
                              105
                                        AAG
                    CAGACTCATC CTTCT
                    GTTTGAGTAG GGGGA
GAM23 HNRPDL 3' AGAAAGGTATGAGTTTG 92
                                         CAA C
                    CAGACTCAT GCTT TCT
                    GTTTGAGTA TGGA AGA
                          _ A
            3' AGAAAGCCATGAGTTTG
GAM23 INHBA
                                 59
                                        CAA C
                    CAGACTCAT GCTT TCT
                     GTTTGAGTA CGAA AGA
                        C__ _
GAM23 KIF3B
           3' AGAGAAGCTCATAAGTGTG 87 G C CA
                    CA ACT AT AGCTTCTCT
                    11 111 11 11111111
                    GT TGA TA TCGAAGAGA
                     G A C_
GAM23 MSN
            3' AGAGAAGCCTGTGCCCTG 262
                                       ACT T A
                    CAG CA CA GCTTCTCT
```

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GTC GT GT CGAAGAGA
                     CC_ C
GAM23 MTR 3' AGAGAAGTGTGACCCTG 36 AC CAA
                    CAG TCAT GCTTCTCT
                    GTC AGTG TGAAGAGA
                     CC
GAM23 PCDHB9 3' AGAGAAGTTAGATCCTG 169
                                     ACTC A
                    CAG ATC AGCTTCTCT
                    GTC TAG TTGAAGAGA
                     C A
GAM23 SMARCA3 3' AGAGAAGCTTCATGTTTG 246
                                       TCATC
                    CAGAC AAGCTTCTCT
                    GTTTG TTCGAAGAGA
                     TAC__
GAM23 SMARCA3 3' AGAGAAGCTTCATGTTTG 66
                                       TCATC
                    CAGAC AAGCTTCTCT
                    GTTTG TTCGAAGAGA
                     TAC__
GAM23 SMG1
           3' AGACAGTAGATGAGTCTG 138
                                        AA _
                    CAGACTCATC GCT TCT
                    GTCTGAGTAG TGA AGA
                       A C
GAM23 SNCAIP 5' AGAAAGGGGGTGAGTCTG 399
                                         AAG C
                    CAGACTCATC CTT TCT
                    GTCTGAGTGG GAA AGA
                       GG_ _
GAM23 SYNGR1 3' AGGGGAGCGATGAGCTG 86
                                         AA
                    CAG CTCATC GCTTCTCT
                    GTC GAGTAG CGAGGGGA
GAM23 UCP2
           5' AGAGAAGCTTGATCTTGGAG 68
                    CTC ATCAAGCTTCTCT
                    GAG TAGTTCGAAGAGA
                     GTTC
GAM23 BMF
           3' AGAGGCTGATGTGTCTG
                               229
                                     T A
                    CAGAC CATCA GCTTCT
                    GTCTG GTAGT CGGAGA
                     Т
GAM23 BNIP2 3' AGAGAATGTGATGAGTT 278
                                      AGC
                    GACTCATCA TTCTCT
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TTGAGTAGT AAGAGA
                        GT_
GAM23 DDX33 3' AGAGAAGCCTTGGAATC 171 C AT
                    GA TC CAAG CTTCTCT
                    CT AG GTTC GAAGAGA
                     A __ C
GAM23 EML4
            3' AGAAACTTTGGATGAGTT 168
                                         _ c
                    GACTCATC AAG TTCT
                     TTGAGTAG TTC AAGA
                        GT A
GAM23 EPB41L4 3' AGAGAAGAAATGGGTCT 187
                                         CAAG
                    AGACTCAT CTTCTCT
                    TCTGGGTA GAAGAGA
                        AA
GAM23 FLJ11588 5' AGAGAAGCAGAACGGCCTG 199
                                         A CA AA
                    CAG CT TC GCTTCTCT
                    GTC GG AG CGAAGAGA
                      C CA A
GAM23 FLJ20150 3' AGAGAAGCCTGTGGCT 153
                                      ATTA
                    AG C CA CA GCTTCTCT
                     TC G GT GT CGAAGAGA
                     __ _ C
GAM23 FLJ20507 3' AGATGTTGATGAGGCTG 154
                                           GT
                                       Α
                    CAG CTCATCAA C TCT
                     GTC GAGTAGTT G AGA
                      G
                          _ T
GAM23 FLJ20507 3' AGATGTTGATGAGGCTG 261
                                           G T
                    CAG CTCATCAA C TCT
                    GTC GAGTAGTT G AGA
                      G
                         _ T
GAM23 FLJ20972 3' AGAGAAGCAGTTGGCATCTG 205
                                          C_ TCAA
                     CAGA TCA GCTTCTCT
                     GTCT GGT CGAAGAGA
                      AC TGA
GAM23 FLJ22233 3' AGAGAAGCTAGAAGTC
                                 204
                                       CA A
                     GACT TC AGCTTCTCT
                     CTGA AG TCGAAGAGA
                      __ A
GAM23 FLJ23191 3' AGAGAAGTTGTGACCTG
                                198
                                       AC CA
                    CAG TCAT AGCTTCTCT
```

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GTC AGTG TTGAAGAGA
                                         TCAA ____
GAM23 FLJ23468 5' AGAGAAACCAGCTGAGTCTG 200
                    CAGACTCA GCT TCTCT
                     GTCTGAGT CGA AGAGA
                         __ CCAA
           3' AGAGAAGCATCAGTCT 133
GAM23 GIT2
                                     C CAA
                    AGACT AT GCTTCTCT
                     TCTGA TA CGAAGAGA
                      С
GAM23 GIT2
           3' AGAGAAGCATCAGTCT 231
                                      C CAA
                    AGACT AT GCTTCTCT
                    TCTGA TA CGAAGAGA
GAM23 GIT2 3' AGAGAAGCATCAGTCT
                               232
                                      C CAA
                    AGACT AT GCTTCTCT
                    TCTGA TA CGAAGAGA
                      C ____
GAM23 GRID1
            3' AGAGAAGCCTAGGTGGGCT 285
                                        A AA
                    AG CTCATC GCTTCTCT
                     TC GGGTGG CGAAGAGA
                        ATC
            3' AAGCTTTCTATGAGTTTG 230
GAM23 GT650
                                         C__
                    CAGACTCAT AAGCTT
                     GTTTGAGTA TTCGAA
                        TCT
GAM23 IKKE 3' AGGACTGTGAGTCTG
                                       CA C
                               124
                    CAGACTCAT AG TTCT
                    GTCTGAGTG TC AGGA
GAM23 KIAA0254 5' AGAGGACCGCGATGAGTC 131
                                          AA ___
                     GACTCATC GC TTCTCT
                     1111111 11 111111
                     CTGAGTAG CG AGGAGA
                        __ CC
GAM23 KIAA1026 3' AGAGAAGCTGCCTCAGTCTG 292
                                          CATCA
                    CAGACT AGCTTCTCT
                     GTCTGA TCGAAGAGA
                       CTCCG
GAM23 KIAA1163 3' AGAGAAGCATGTCTGAGTT 331
                                         T_ A
                    GACTCA CA GCTTCTCT
```

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CT A
                                             TC___
GAM23 KIAA1598 3' AGAAGCTTCTGTTTTGGGTCTG 161
                     CAGACTCA
                               AAGCTTCT
                     GTCTGGGT
                               TTCGAAGA
                        TTTGTC
GAM23 KIAA1853 3' AGAAGCAATGGGTCTG
                                  287
                                          CAA
                     CAGACTCAT GCTTCT
                     GTCTGGGTA CGAAGA
                         Α
GAM23 LOXL4 3' AGAGAAGCTGGTGGATC 213
                                       CT A
                     GA CATCA GCTTCTCT
                     CT GTGGT CGAAGAGA
                      AG
GAM23 METAP1 3' AGAGAAGCGTGAAGTTTG 298
                                          CA A
                     CAGACT TCA GCTTCTCT
                     GTTTGA AGT CGAAGAGA
                       __ G
GAM23 MGC11034 3' AGAGAAGCTCTTTGAAGTT 211
                                          TCA
                     GACT CA AGCTTCTCT
                     TTGA GT TCGAAGAGA
                      A TTC
GAM23 MGC14128 3' AGAAGCTTTGAGAGCCTG 222
                                          A A _
                     CAG CTC TCAA GCTTCT
                     GTC GAG AGTT CGAAGA
                      C T
GAM23 MGC16175 5' AGAGGCTGTGAGTCTG
                                           CA
                                   219
                     CAGACTCAT AGCTTCT
                     GTCTGAGTG TCGGAGA
GAM23 MGC2752 5' AGAGAAGCTCAGTAGAATC 327
                                         C _ CA
                     GA TC AT AGCTTCTCT
                     11 11 11 11111111
                     CT AG TG TCGAAGAGA
                      A A AC
GAM23 MGC34923 3' AGAGAAGTAGGAAGAGCCTG 254
                                           A A AA
                     CAG CTC TC GCTTCTCT
                     GTC GAG AG TGAAGAGA
                      C A GA
GAM23 NR1I3 5' AGAGAAGCAGGAGTCTG
                                 89
                                        ATCAA
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CAGACTC GCTTCTCT

TTGAGT GT CGAAGAGA

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GTCTGAG CGAAGAGA
                       GA
GAM23 NYD-SP15 3' AGAGAAGAAATATTTGAGTCTG 208
                                            TCAAG
                     CAGACTCA
                              CTTCTCT
                     GTCTGAGT
                               GAAGAGA
                        TTATAAA
GAM23 OSBPL8 5' AGAGAAGTTGGGGTCTG 177
                                         ATCAA
                     CAGACTC GCTTCTCT
                     GTCTGGG TGAAGAGA
                       GT
GAM23 PLEKHA4 5' AGAGACCCTGTGAGTCTG 178
                                           CA CT
                    CAGACTCAT AG TCTCT
                     11111111 11 11111
                     GTCTGAGTG TC AGAGA
                        CC
GAM23 PRKWNK2 3' AGAGATGATTGAGTCTG 372
                                          AGCT
                    CAGACTCA TCA TCTCT
                     GTCTGAGT AGT AGAGA
                        T ___
GAM23 PSMD4 3' AGGGTAGCTGAGTCTG
                                        TCAA T
                                 63
                     CAGACTCA GCT CTCT
                     GTCTGAGT CGA GGGA
GAM23 RIS1
           3' AGAGAAGCTCTTTGTATCTG 337
                                       CT TCA
                    CAGA CA AGCTTCTCT
                     GTCT GT TCGAAGAGA
                      AT TTC
GAM23 RNF24 3' AGAGGAGTGGATGAGCCTG 114
                                           AA
                    CAG CTCATC GCTTCTCT
                    GTC GAGTAG TGAGGAGA
                      С
                         G_{-}
GAM23 SNURF 3' AGAAAAGCGGGTTTTGGGTCTG 96
                                           TCAA__ C
                     CAGACTCA
                               GCTT TCT
                     CGAA AGA
                     GTCTGGGT
                        TTTGGG A
GAM23 SULT4A1 3' AGAGAAGCTTGTGTTTTTG 284
                                        CT T
                     CAGA CA CAAGCTTCTCT
                     GTTT GT GTTCGAAGAGA
                      TT _
                                         _{-} GC
GAM23 SV2B
            3' AGAGAATTGTGTGAGTCTG 135
                    CAGACTCAT CAA TTCTCT
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GTCTGAGTG GTT AAGAGA
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Т

GAM23 SZF1 5' AGAGAAGCCTAGATATCTG 147 CTC AA_ CAGA ATC GCTTCTCT

GTCT TAG CGAAGAGA

A__ ATC

GAM23 TLR10 5' AGAGAGGGTATTGAGTCTG 210 TCAAG

CAGACTCA CTTCTCT

GTCTGAGT GGAGAGA

TATG

GAM23 ZNF185 3' AGAGGAGCTTGTGAATC 111 C T

GA TCA CAAGCTTCTCT

CT AGT GTTCGAGGAGA

Α

GAM23 LOC113612 3' AGAAGGATGAGTTTG 300 AAG

CAGACTCATC CTTCT

GTTTGAGTAG GAAGA

GAM23 LOC133539 3' AGAGAAGCCCAGGATGGTC 312 T AA

GAC CATC GCTTCTCT

CTG GTAG CGAAGAGA

_ GACC

GAM23 LOC139221 5' AGAGAAGCACATGACCTG 313 AC CAA

CAG TCAT GCTTCTCT

GTC AGTA CGAAGAGA

C_ CA_

GAM23 LOC142941 3' AAGTTTATTGTAATGAGTCTG 345

CAGACTCAT CAA GCTT

GTCTGAGTA GTT TGAA

AT ATT

GAM23 LOC145717 5' AGAGAGTGGGGGTGAGTCTG 279 AA_ T

CAGACTCATC GCT CTCT

GTCTGAGTGG TGA GAGA

GGG _

GAM23 LOC147229 3' AGAGAAGCTGGCAAGAGCTG 325 A ATCA_

CAG CTC AGCTTCTCT

GTC GAG TCGAAGAGA

_ AACGG

GAM23 LOC147658 3' AGAAAAGTTTGAAGTC 326 CA C

GACT TCAAGCTT TCT

CTGA AGTTTGAA AGA

Α

GAM23 LOC147920 3' AGAGAAGCCTGAGGAATTT 328 C A A

AGA TC TCA GCTTCTCT

TTT AG AGT CGAAGAGA

AGC

GAM23 LOC148894 5' AGAGAAGCTCCGTGGGCCTG 347 A CA

CAG CTCAT AGCTTCTCT

GTC GGGTG TCGAAGAGA

C CC

GAM23 LOC150606 3' AGAGAAGCTGGGTGATCTG 349 C

CAGA TCATC AGCTTCTCT

GTCT AGTGG TCGAAGAGA

G

GAM23 LOC150606 3' AGAGAAGCTTGTGGTC 350 T T

GAC CA CAAGCTTCTCT

CTG GT GTTCGAAGAGA

GAM23 LOC152220 3' AGAGTATTTCTTGATGAATTT 351 C CTT_

AGA TCATCAAG CTCT

TTT AGTAGTTC GAGA

A TTTAT

GAM23 LOC155382 3' AGAGAAGCTGCAGGAGCTG 356 A ATCA

CAG CTC AGCTTCTCT

GTC GAG TCGAAGAGA

_ GACG

GAM23 LOC157621 3' AGAGGGCGAAATGAGTCT 358 CAA T

AGACTCAT GCT CTCT

TCTGAGTA CGG GAGA

AAG _

GAM23 LOC161528 5' AGAGAGTGGGGGTGAGTCTG 342 AA_ T

CAGACTCATC GCT CTCT

GTCTGAGTGG TGA GAGA

GGG _

GAM23 LOC197114 5' AGAGAAGCCCGAGGGGGCTG 369 A A AA

CAG CTC TC GCTTCTCT

GTC GGG AG CGAAGAGA

G G CC

GAM23 LOC199883 3' AGAAAGGCGGTGAGTC 370 AA C

GACTCATC GCTT TCT

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CTGAGTGG CGGA AGA
                        __ A
GAM23 LOC200020 3' AGAAAGGCGGTGAGTC
                                         AA C
                                  371
                    GACTCATC GCTT TCT
                    CTGAGTGG CGGA AGA
GAM23 LOC200226 3' AGAGAAGCTCGTGAATGTT 365
                                         __ CA
                    GAC TCAT AGCTTCTCT
                    TTG AGTG TCGAAGAGA
                     TA C
GAM23 LOC204820 5' AGAGAAGCCAGGCCAGCTG 373
                                          A CA AA
                    CAG CT TC GCTTCTCT
                    GTC GA GG CGAAGAGA
                     CC AC
GAM23 LOC219392 5' AGAGAAATCCTAGATGAGTC 377
                                           A C
                    GACTCATC AG TTCTCT
                    CTGAGTAG TC AAGAGA
                       A CTA
GAM23 LOC219800 3' AGAGAAGCTTGGGAGCCT 389
                                        A A
                    AG CTC TCAAGCTTCTCT
                    TC GAG GGTTCGAAGAGA
                     C _
GAM23 LOC220753 5' AGAGAAGCCAGAGGTGTG 388
                                         G CA AA
                    CA ACT TC GCTTCTCT
                    GT TGG AG CGAAGAGA
                     G __ AC
                                          AC AA
GAM23 LOC220776 3' AGAGGGGTGATGATAAACTG 283
                    CAG TCATC GCTTCTCT
                    GTC AGTAG TGGGGAGA
                     AAAT __
GAM23 LOC221454 5' AGAGAAGATGAAAGTTTG 382
                                         CA AG
                    CAGACT TCA CTTCTCT
                    GTTTGA AGT GAAGAGA
                       A_ A_
GAM23 LOC222444 3' AGAGAAGCCCAGGATGGTC 392
                                         T AA__
                    GAC CATC GCTTCTCT
                    CTG GTAG CGAAGAGA
                      _ GACC
GAM23 LOC222962 3' AGAGGGGAGGTAAGTCTG 387
                                          C AAG
                    CAGACT ATC CTTCTCT
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GTCTGA TGG GGGGAGA
                       A A__
GAM23 LOC245727 5' AGAGAGTGGGGGTGAGTCTG 376
                                            AA T
                     CAGACTCATC GCT CTCT
                     GTCTGAGTGG TGA GAGA
                         GGG _
GAM23 LOC253525 5' AGAGAAGCTGCAGGTTTG 401
                                          CATCA
                     CAGACT AGCTTCTCT
                     GTTTGG TCGAAGAGA
                       ACG
GAM23 LOC254249 5' AGAGAAGTTTGTAAATTTG 397
                                         CTCAT
                     CAGA CAAGCTTCTCT
                     GTTT GTTTGAAGAGA
                      AAAT
                                         _ ATCAA
GAM23 LOC255475 5' AGAGAAGCCGAGCTCTG 403
                     CAGA CTC GCTTCTCT
                     GTCT GAG CGAAGAGA
                      CC
GAM23 LOC51026 3' AGAACCCTTGATGAGACT 146
                                           С
                     AG CTCATCAAG TTCT
                     TC GAGTAGTTC AAGA
                     Α
                          CC
GAM23 LOC91308 5' AGAAGAGATGAGTTTG 274
                                         AAG
                     CAGACTCATC CTTCT
                     GTTTGAGTAG GAAGA
GAM24 CASP10 3' ATACAACCTGATGTCATATTCC 223 C ____ C_ A III
        ATTTTGGA
                         TG GA AC CAG TTGTA T
                     AC CT TG GTC AACAT A
                     _ TATAC TA C III
GAM24 CASP10 3' ATACAACCTGATGTCATATTCC 224 C ____ C_ A III
        ATTTTGGA
                         TG GA AC CAG TTGTA T
                     AC CT TG GTC AACAT A
                     _ TATAC TA C III
GAM24 CHRNB3 5' TTGGGTTCCACTTCGGA 49
                                       AAC
                     TCC AA TG GAACCCAG
                     AGG TT AC CTTGGGTT
                      \mathsf{C} \; \mathsf{C} \; {}_{-}
                                       G C_
GAM24 LANCL1 3' TACAATCTGGACTTGGTA 100
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TGC AA CCAGATTGTA

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ATG TT GGTCTAACAT
                      G CA
GAM24 MS4A3 3' ACATCTGGGTTCAAATTCTG 101 A GC
                                                 Т
                     CA AAT GAACCCAGAT GT
                     GT TTA CTTGGGTCTA CA
                      C AA
GAM24 SLC1A4 3' TACAATTGTCCCAGTTCGCAT 64
                                            CCA__
                     ATGCGAAC
                                GATTGTA
                     TACGCTTG
                               TTAACAT
                        ACCCTG
GAM24 ALLC
            5' TACAAGGATTTCGCATTCTGGG 162
                                              C_ AGA
                                          Α
                     TCCA AATGCGAA CC TTGTA
                     GGGT TTACGCTT GG AACAT
                       C
                           TA
GAM24 APOL6
           3' CTGGGTTCACATTTTGGA
                                  206
                                          С
                     TCCAAAATG GAACCCAG
                     AGGTTTTAC CTTGGGTC
                         Α
GAM24 CBX6
            3' TTGGGCTCCATTCTGGA
                                 128
                                       ACA
                     TCCA AATG GA CCCAG
                     1111 1111 11 11111
                     AGGT TTAC CT GGGTT
                       C C
GAM24 FLJ10055 3' TTGGGAGTCCCATTTTGGA 156
                                            CA
                     TCCAAAATG GA CCCAG
                     AGGTTTTAC CT GGGTT
                         C GA
GAM24 FLJ22059 5' CAGTCTGGACCAGCACCTTGGA 191
                                            AA GAAC
                     TCCAA TGC CCAGATTG
                     AGGTT ACG GGTCTGAC
                       CC ACCA
GAM24 KCNH8
             3' TTGGGTTCACATTCTGGA 252
                                         A C
                     TCCA AATG GAACCCAG
                     AGGT TTAC CTTGGGTT
                       C A
GAM24 KIAA0870 3' TTGGGTCTGCATTTTGGA 339
                                            Α
                     TCCAAAATGCG ACCCAG
                     AGGTTTTACGT TGGGTT
                          C
GAM24 KIAA1157 3' ACAGTATTCCATTTTGGA
                                  296
                                           C CCCAG
```

TCCAAAATG GAA ATTGT

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AGGTTTTAC CTT TGACA
                       _ A__
                                        C GA
GAM24 PRO1048 3' ACAATGAGTTTGCATTTT 163
                    AAAATGCGAAC CA TTGT
                    TTTTACGTTTG GT AACA
                        Α __
GAM24 PRO1787 3' ACAATTCCGCATTTTG 165
                                      AACCCA
                    CAAAATGCG GATTGT
                    GTTTTACGC
                              TTAACA
                       С
GAM24 UBE2G1 3' TACAGATGATTACGCATTTTG 67
                                        AACC GA
                    CAAAATGCG CA TTGTA
                    GTTTTACGC GT GACAT
                       ATTA A
GAM24 LOC122402 3' TACTTCTTGGTTCACATTTTGG 306
                                         C C TT
        Α
                    TCCAAAATG GAACC AGA GTA
                    AGGTTTTAC CTTGG TCT CAT
                       A T T_
GAM24 LOC153592 3' GGAATTCAGCATTTTGGA 355
                                          _ C_
                    TCCAAAATGC GAA CC
                    AGGTTTTACG CTT GG
                       A AA
GAM24 LOC256158 5' ACAATCTGAACGTCTGGG 404 AAAT AACC
                    TCCA GCG CAGATTGT
                    GGGT TGC GTCTAACA
                     C___ AA__
GAM25 ITGA5 3' CTCAGATCCAGGGACAGAGG 264
                                        GTTAGA A
                    TCTCTG CC GATCTGAG
                    GGAGAC GG CTAGACTC
                      AG____ AC
           3' GCTCTAGAATCTAACCAGA 116
GAM25 SF3B3
                                         CCAGA _
                    TCTGGTTAGA TCT GAGC
                    AGACCAATCT AGA CTCG
                        A____ T
                                         AC A
GAM25 SLC4A4 3' GCTCAGAGTTGTTAACCAGA 71
                    TCTGGTTAG CAG TCTGAGC
                    AGACCAATT GTT AGACTCG
                        G
GAM25 ZNF180 3' CTCAGACCTGAATCAGAGA 120
                                         AGAC A
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TCTCTGGTT CAG TCTGAG

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AGAGACTAA GTC AGACTC
                       __ C
GAM25 AP1G2 5' GCCCAGGCACGCCCGACCAGAG 233
                                       AGACCAGA A
        Α
                    TCTCTGGTT
                               TCTG GC
                    1111 11
                    AGAGACCAG
                               GGAC CG
                       CCCGCAC C
GAM25 BCL2L1 3' GCCCAGATCTGGTCCCTTGCAG 241
                                        GTTA
                                                Α
                    CTG GACCAGATCTG GC
                    GAC CTGGTCTAGAC CG
                     GTTCC
                            С
GAM25 FLJ25012 5' CTCAGATCTGAAAAGCACAAGA 250
                                      C AGAC
                    TCT TG GTT CAGATCTGAG
                    AGA AC CGA GTCTAGACTC
                     A AAA
GAM25 FLJ31952 3' CAAATCTGGTTCTGAAAG 253
                                     GG _ C
                    CT TTAGA CCAGAT TG
                    GA AGTCT GGTCTA AC
                    A_ T A
GAM25 MDS025 3' CTCAGACCTGGTTTGAGATAGA 184
                                        G A
                    TCTG TTAGACCAG TCTGAG
                    AGAT AGTTTGGTC AGACTC
                     AG
GAM25 MGC32043 3' GCTCAGATCTGATGCTTCAAGA 249
                                         GGTT AC
                    TCT AG CAGATCTGAGC
                    AGA TC GTCTAGACTCG
                     ACT_ GTA
GAM25 MSI2 3' CTCCCCATCCCAACCAGAGA 245
                                       AGACCA CT
                    TCTCTGGTT GAT GAG
                    AGAGACCAA CTA CTC
                       CC____ CCC
GAM25 ZNF271 5' GCTCAGATCTGGTTAAACATCA 395
        GAGA
                      TCTCTG GTT GACCAGATCTGAGC
                    AGAGAC CAA TTGGTCTAGACTCG
                      TA A
GAM25 LOC144508 5' GCTCAGATCCATGTGCCAGGGA 362
                                           TAGACCA
                    TCTCTGGT GATCTGAGC
                    CTAGACTCG
                    AGGGACCG
                       TGTAC__
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GAM25 LOC145845 3' CTCAAATCCCACCAGAGA 346

TCTCTGGT GAT TGAG

TAGACCA C

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AGAGACCA CTA ACTC
                        CC____ A
GAM26 CDH19 3' GAAAATTTAAAGGAGCAA
                                 182
                                       Α
                    TTGC CTTTAAATTTTC
                     AACG GAAATTTAAAAG
                      AG
GAM26 CRYGS
             5' TGGGAAAACCAGTCTATGCACC 152
                                           T CTTTAAA
        AA
                      TTGGT GCA
                                TTTTCCCA
                     AAAAGGGT
                     AACCA CGT
                      ATCTGACC
GAM26 CYP1B1 3' GAAAATTGAAAAGTACAACTAA 33
                                          C A
                    TTGGTTG ACTTT AATTTTC
                     AATCAAC TGAAA TTAAAAG
                       A AG
                                          C AAA
GAM26 GLI3
          3' GGAAAAAAAGACTGCAACCAA 35
                    TTGGTTGCA TTT TTTTCC
                    AACCAACGT AGA AAAAGG
                        C AA_
GAM26 PCLO
            3' GAAGATAATGCAACCAA
                                391
                                        CTTTAA
                    TTGGTTGCA ATTTTC
                     AACCAACGT
                               TAGAAG
                        AA
GAM26 PPP2R5A 3' TGGGAAAGTAAACCAA
                                        GC TAAATTT
                                 102
                    TTGGTT ACTT
                                 TCCCA
                     AACCAA TGAA
                                  AGGGT
            3' TGAGAAAATTTAAAGTGTTTCT 207
                                                С
GAM26 PTER
                                        TT
        AG
                      TTGG GCACTTTAAATTTTC CA
                     GATC TGTGAAATTTAAAAG GT
                      TT
                             Α
            3' GGGAAAAGCAGTAAACCAA 39
GAM26 RFX5
                                        GC TTAAA
                    TTGGTT ACT TTTTCCC
                     AACCAA TGA AAAAGGG
                       A CG
GAM26 CSMD1 3' GGAGTATTAAAGTGGAACCAA 301
                                          G
                                              ATT
                    TTGGTT CACTTTAA TTCC
                     AACCAA GTGAAATT GAGG
                       G
                           \mathsf{AT}_{-}
GAM26 MGC15438 3' GAAAGAAAGCGCAGCCAA 220
                                           A AAA
                    TTGGTTGC CTTT TTTTC
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AACCGACG GAAA GAAAG
                       С
                                         C AAAT
GAM26 NYD-SP18 3' GGAGAAAACTGCAACCAA 217
                    TTGGTTGCA TTT TTTCC
                    AACCAACGT AAA AGAGG
                        С
GAM26 OLFM3 3' GGAAAAATAATGTAACCAA 340
                                         C TAAA
                    TTGGTTGCA TT TTTTCC
                    AACCAATGT AA AAAAGG
                        TA
GAM26 RPL13A 3' GGGAAGATGCACAACCAA 115
                                         CACTTTAA
                    TTGGTTG
                              ATTTTCCC
                    AACCAAC
                              TAGAAGGG
                       ACG
GAM26 LOC129452 3' AGAATGGACAAGCGCAACCAA 310
                                           A TAA
                    TTGGTTGC CTT ATTTT
                    AACCAACG GAA TAAGA
                       C CAGG
GAM26 LOC150197 3' GGATTAAAGTGGAACCAA 335
                                         G
                                             ATTT
                    TTGGTT CACTTTAA TCC
                    AACCAA GTGAAATT AGG
GAM26 LOC162239 3' GGAAATTATAAATGGCAACCAA 344
                                           AC AAT
                    TTGGTTGC TTTA TTTCC
                    AACCAACG AAAT AAAGG
                       GT ATT
GAM26 LOC219972 3' GAAATGGCAAGTGCAACCAA 379
                                             TAA
                    TTGGTTGCACTT ATTTT
                    AACCAACGTGAA TAAAG
                         CGG
GAM27 DDX6
            3' ATTGTGACAAGAATTGTTACC 80 C CCC C
                    GG AACGA CT GTCACAAT
                    CC TTGTT GA CAGTGTTA
                     A \quad AA \quad A
                                          _ _ C
GAM27 LOC126917 3' GCAGTGGGTCTGTTGCCA 309
                    TGGCAAC GACCC CT GT
                    ACCGTTG CTGGG GA CG
                       T T _
GAM27 LOC170395 3' TATTGTTTCTGGGTGTTGCCA 316
                                           G CTCGTC
                    TGGCAAC ACCC ACAATA
```

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ACCGTTG TGGG
                                    TGTTAT
                         _ TCTT__
GAM28 ABCC3 3' TGCCCCTGGCTGTGCTCTAC 170
                                           CAT
                      GTG AG ACA CCAGGGGCA
                      CAT TC TGT GGTCCCCGT
                       CGC
GAM28 CASP3
             3' TGCCCCTGGATCTACCAGCAT 225
                                            AGAAC_
                      GTGC
                           ATCCAGGGGCA
                      Ш
                        TACG
                            TAGGTCCCCGT
                       ACCATC
GAM28 CASP3
             3' TGCCCCTGGATCTACCAGCAT 79
                                           AGAAC
                      GTGC
                            ATCCAGGGGCA
                      ||||
                         TACG
                            TAGGTCCCCGT
                       ACCATC
GAM28 EMS1
             3' CCCTGGATCCTCACACTA 90
                                         CA AC
                      TAGTG GA ATCCAGGG
                      ATCAC CT TAGGTCCC
                        A_ CC
             3' CCCTGGATCCTCACACTA 240
                                          CA AC
GAM28 EMS1
                      TAGTG GA ATCCAGGG
                      11111 11 11111111
                      ATCAC CT TAGGTCCC
                        A CC
             3' TGCCCCTGGACATGTTTCCTAC 97
GAM28 MLLT2
                                           CA
                      GTG GAACA TCCAGGGGCA
                      CAT TTTGT AGGTCCCCGT
                       CC
                          AC
GAM28
     TACC1
             3' TGCCCCCAGATGTTCCTGGGCT 104
                                            G
                                                  CA
         G
                      TAGT CAG AACATC GGGGCA
                      GTCG GTC TTGTAG CCCCGT
                       G C
                            AC
GAM28 TNFSF6 3' CCAGGTGTTCTACACTCA 42
                                        T C
                                               CA
                      A AGTG AGAACATC GG
                      1 1111 11111111 11
                      A TCAC TCTTGTGG CC
                      C A
                             \mathsf{A}_{-}
GAM28 UBB
            3' TGGCATTACTCTGCACTATA 166
                                            AC_ _
                      TATAGTGCAGA AT CCA
                      ATATCACGTCT TA GGT
                          CAT C
GAM28 AKAP10 3' TGCCCCTTTGGAATTCTGCACT 113
                                              CA
                      AGTGCAGAA TCCA GGGGCA
```

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TCACGTCTT AGGT CCCCGT
                       A_ TT
                                        _ TCC
GAM28 DECR2 3' GCCCCTCTGTCTCTGCAC 176
                    GTGCAGA ACA AGGGGC
                    CACGTCT TGT TCCCCG
                       СС
GAM28 KIAA0240 3' GCCCCTGTGTCCCACTA
                                 383
                                       CA A TC
                    TAGTG GA CA CAGGGGC
                    ATCAC CT GT GTCCCCG
                      C_ _ _
GAM28 MGC16385 5' GCCCCTGGACGTTTCTGCCGC 255
                                          _ _A
                    GTG CAGAA C TCCAGGGGC
                    CGC GTCTT G AGGTCCCCG
                     C TC
GAM28 MGC5139 5' GCCCCTGGGCACACTGTA 305
                                         CAGAACA
                    TATAGTG TCCAGGGGC
                         ATGTCAC GGGTCCCCG
                       AC
GAM28 P5-1 3' CCCCTGGATGCCCCTAACCACT 110
                                        C__ AA_
                    AGTG AG CATCCAGGGG
                    TCAC TC GTAGGTCCCC
                     CAA CCC
GAM28 TED
           3' CCCCTGGGCCCTGCCTA 143 T AACA
                    TAG GCAG TCCAGGGG
                    ATC CGTC GGGTCCCC
                     _ CC__
GAM28 LOC133418 3' TGCTCTAAAGCTCTGCACTA 311
                                         ACATCCA
                    TAGTGCAGA GGGGCA
                    ATCACGTCT
                               TCTCGT
                       CGAAA
GAM28 LOC152402 3' GCCCTTACATTCTGCACT 353
                                          CATCC
                    AGTGCAGAA AGGGGC
                    TCACGTCTT
                             TTCCCG
                       ACA__
GAM28 LOC158677 3' TGCCCCTGGATATCAGCAATAT 360
                                          G A AC
        Α
                    TATA TGC GA ATCCAGGGGCA
                    ATAT ACG CT TAGGTCCCCGT
                     A A A_{-}
                                         AA TC _
GAM28 LOC221715 3' CCACTGTGCTTGCACTA
                                 390
```

TAGTGCAG CA CAG GG

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ATCACGTT GT GTC CC
                        C_ __ A
                                            \mathsf{AC}_- \ \_
GAM28 LOC254746 3' TGGCATTACTCTGCACTATA 394
                     TATAGTGCAGA AT CCA
                     ATATCACGTCT TA GGT
                         CAT C
GAM28 LOC255098 3' TGCTCTAAAGCTCTGCACTA 396
                                          ACATCCA
                     TAGTGCAGA
                                GGGGCA
                     111111
                     ATCACGTCT
                                TCTCGT
                        CGAAA
GAM29 ADAM19 3' CTGATGGAGATGCTCAAGGC 228
                                          AG
                                               TATGG
                     GCCTT GCATCTCC CAG
                     CGGAA CGTAGAGG GTC
                       CT
                            TΑ
GAM29 LFG 3' TGCCACAGGCCTAAGGCT 319
                                         ATCTC A
                     AGCCTTAGGC CT TGGCA
                     TCGGAATCCG GA ACCGT
                          ___ C
GAM29 NOLA2 5' GGAAGTGATGCCTAAAGCT 393
                                        C
                     AGC TTAGGCATC TCC
                     TCG AATCCGTAG AGG
                          TGA
GAM29 FLJ10751 3' CCAGAGACACCTGAGGC 158
                                          CA CTA
                     GCCTTAGG TCTC TGG
                     CGGAGTCC AGAG ACC
                        AC
GAM29 FLJ10751 3' CCAGAGACACCTGAGGC
                                         CA CTA
                                  159
                     GCCTTAGG TCTC TGG
                     CGGAGTCC AGAG ACC
                        AC
GAM29 FLJ10925 5' CTGCCCCCAGGGACACCTAAGG 160
                                             CA T AT_
        C
                     GCCTTAGG TC CCT GGCAG
                     CGGAATCC AG GGA CCGTC
                        AC _ CCC
GAM29 KIAA1118 3' GTGGTTGAGATGCCCACGGCT 289
                                          TTA
                                                CT G
                     AGCC GGCATCTC AT GC
                     TCGG CCGTAGAG TG TG
                            T_G
                      CAC
GAM29 KIAA1649 3' CTGCCATTTCTGTGCCTAGGCT 215
                                           Т
                                              CTCCT
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AGCCT AGGCAT ATGGCAG

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TCGGA TCCGTG TACCGTC
                          TCTT_
GAM29 LIMR 3' CTGCCATCTGCTGCCTAGGC 157 T TCTCCT
                     GCCT AGGCA ATGGCAG
                     CGGA TCCGT
                                TACCGTC
                       _ CGTC
GAM29 MGC14161 5' CCAGAGAGATGCCAAAGGC 221
                                            Α
                                                CTA
                     GCCTT GGCATCTC TGG
                     CGGAA CCGTAGAG ACC
                       Α
                           AG
GAM29 NJMU-R1 3' CATGAAGAAATGCCTGAAGC 188
                                              СС
                     GC TTAGGCAT TC TATG
                     11 11111111 11 1111
                     CG AGTCCGTA AG GTAC
                          A AA
GAM29 SEMA3E 3' CTGTTGTGAGAAATGCCCAGGC 119 TA C C TG
         Т
                      AGCCT GGCAT TC TA GCAG
                     TCGGA CCGTA AG GT TGTC
                       C_ A A GT
GAM29 YKT6
            3' CTGCCATAGATACCCTAAG 106
                                         CATCTC
                     CTTAGG CTATGGCAG
                     GAATCC GATACCGTC
                        CATA
GAM29 LOC142972 5' GCCACAGGAGATGCCCAAAGC 271
                                            CA
                                                   Α
                     GC TT GGCATCTCCT TGGC
                     CG AA CCGTAGAGGA ACCG
                      A C
                             С
GAM29 LOC143689 3' TGCCATAAGCTCAAGGCT 318
                                           AG ATCTCC
                     AGCCTT GC TATGGCA
                     TCGGAA CG ATACCGT
                        CT A___
GAM29 LOC148930 5' CCATAGGGAGCCTAAG
                                           АТ
                                   332
                     CTTAGGC TC CCTATGG
                     1111111 11 1111111
                     GAATCCG AG GGATACC
GAM29 LOC220469 3' CCAAGGGATGCCCAAAGC 317
                                          CA TA
                     GC TT GGCATC CCT TGG
                     11 11 111111 111 111
                     CG AA CCGTAG GGA ACC
                      AC
GAM29 LOC253782 3' CATAAGAGCACCTAAGGC 398
                                            CAT C
```

GCCTTAGG CTC TATG

CGGAATCC GAG ATAC

AC_ A

GAM29 LOC92078 5' TGCCCAGAGGCCTAAGGCT 282 A CCTAT

AGCCTTAGGC TCT GGCA

TCGGAATCCG AGA CCGT

G C____